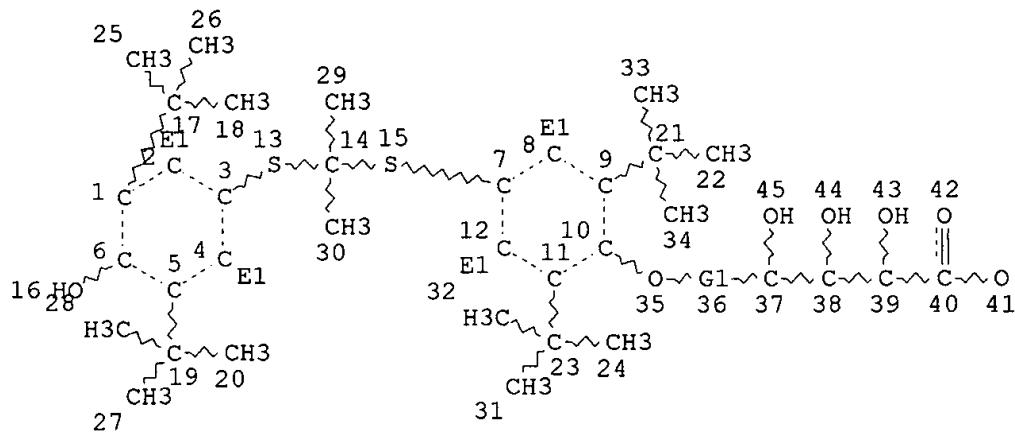


NTER (DIS), GRA, NOD, BON OR ?:nod 29 ch3, nod 30 ch3, hco 2 e1, hco 4 e1, hco 8 e1, hco 12 e1, dis



REP G1=(1-5) CH2
ENTER (DIS), GRA, NOD, BON OR ?:end
L3 STRUCTURE CREATED

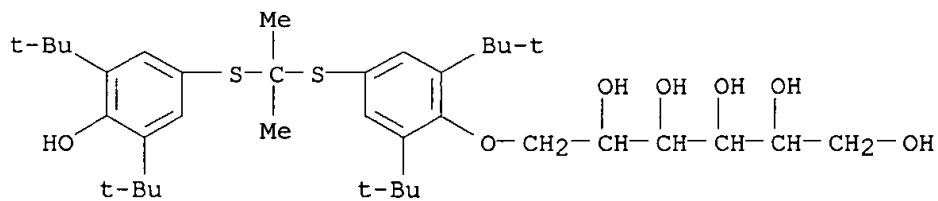
=> search l3 sss full
FULL SEARCH INITIATED 15:38:21 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 9 TO ITERATE

100.0% PROCESSED 9 ITERATIONS (7 INCOMPLETE) 9 ANSWERS
SEARCH TIME: 00.00.01

L4 9 SEA SSS FUL L3

=> dis l4 1- sub bib abs
YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y/(N):y

L4 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2003 ACS
RN 473427-26-8 REGISTRY
ITERATION INCOMPLETE
CN Hexitol, 6-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C37 H60 O7 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

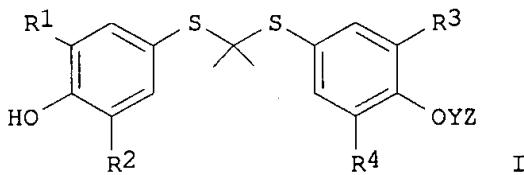
REFERENCE 1

AN 137:320305 CA
TI Probucol derivatives and methods for treating transplant rejection
IN Edwards, David B.; Somers, Patricia K.; Glass, Mitchell

PA USA
 SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No. 815,262.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002156022	A1	20021024	US 2001-36307	20011025
	US 6147250	A	20001114	US 1998-79213	19980514
	US 2002016300	A1	20020207	US 2001-815262	20010321
	US 2002177717	A1	20021128	US 2002-60734	20020130
	US 2002169215	A1	20021114	US 2002-114346	20020402
	US 2002188118	A1	20021212	US 2002-115206	20020402
	US 2002193446	A1	20021219	US 2002-114351	20020402
PRAI	US 1997-47020P		19970514		
	US 1998-79213		19980514		
	US 1999-370046		19990806		
	US 2000-191046P		20000321		
	US 2001-815262		20010321		

GI



AB The invention discloses the use of I [R1-R4 = H, OH, C1-10 alkyl, aryl, heteroaryl, etc.; Y = bond, C(O); Z = C1-10 alkyl, C2-10 alkenyl, C2-10 alkynyl, etc.], and pharmaceutically acceptable salts thereof, alone or in combination, for the treatment of transplant rejection. Prepn. of I [R1-R4 = tert-butyl; YZ = (CH₂)₃COOH] from probucol which was evaluated in a graft arteriopathy model and Me 4-chlorobutyrate is described.

L4 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2003 ACS

RN 366494-65-7 REGISTRY

ITERATION INCOMPLETE

CN D-Altritol, 1-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

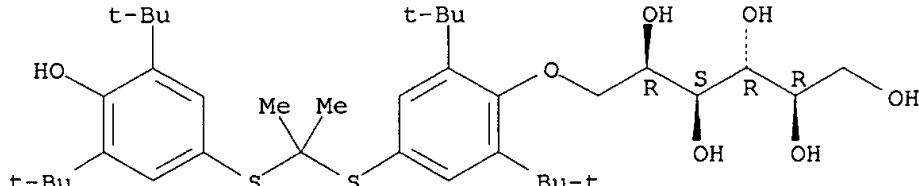
FS STEREOSEARCH

MF C37 H60 O7 S2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

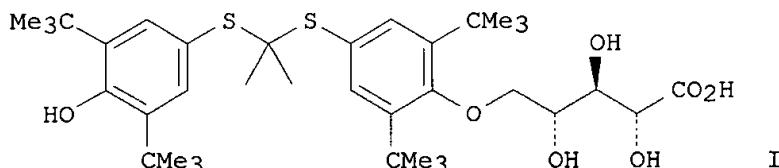
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:303678 CA
 TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.
 IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday
 PA Atherogenics, Inc., USA
 SO PCT Int. Appl., 105 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077072	A2	20011018	WO 2001-US11899	20010411
WO 2001077072	A3	20020718		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
US 2002016364	A1	20020207	US 2001-833407	20010411
EP 1272465	A2	20030108	EP 2001-926894	20010411
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
PRAI US 2000-196201P		20000411		
WO 2001-US11899		20010411		

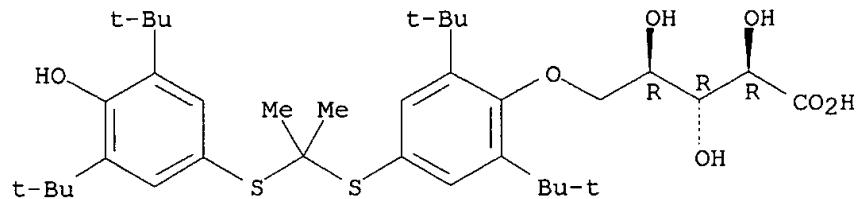
GI



AB Title compds., e.g. (I), were prep'd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H2O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b) increasing HDL-particle affinity for hepatic cell surface receptors or (c) increasing the half life of apoAI-HDL.

L4 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2003 ACS
 RN 366494-61-3 REGISTRY
 CN D-Ribonic acid, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]-(9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C36 H56 O7 S2
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:303678 CA
TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.
IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 105 pp.

CODEN: PIXXD2

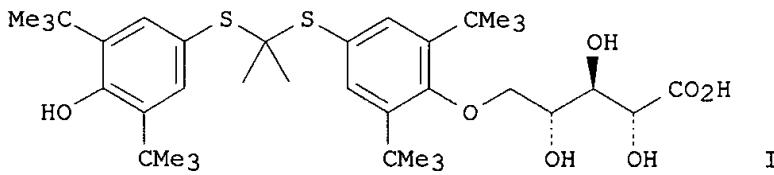
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077072	A2	20011018	WO 2001-US11899	20010411
	WO 2001077072	A3	20020718		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 2002016364	A1	20020207	US 2001-833407	20010411
	EP 1272465	A2	20030108	EP 2001-926894	20010411
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	US 2000-196201P		20000411		
	WO 2001-US11899		20010411		

GI



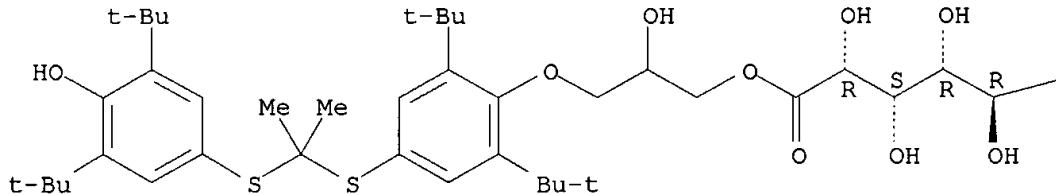
AB Title compds., e.g. (I), were prep'd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H₂O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b)

increasing HDL-particle affinity for hepatic cell surface receptors or (c) increasing the half life of apoAI-HDL.

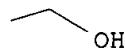
L4 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2003 ACS
RN 362598-46-7 REGISTRY
ITERATION INCOMPLETE
CN D-Gluconic acid, 3-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenoxy]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C40 H64 O10 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

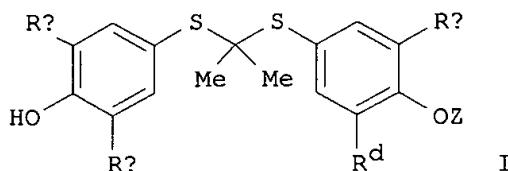
REFERENCE 1

AN 135:267271 CA
TI Probuclol-related thioketals and thioethers for inhibiting the expression of VCAM-1, preparation, and therapeutic use
IN Meng, Charles Q.; Hoong, Lee K.; Somers, Patricia K.
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070757	A2	20010927	WO 2001-US9049	20010321
	WO 2001070757	A3	20020314		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP	1289944	A2	20030312	EP 2001-920617	20010321
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 2000-191046P 20000321
WO 2001-US9049 20010321

GI



I

AB Probucol-related thioketals and thioethers are provided that inhibit the expression of VCAM-1, and which can be used in the treatment of VCAM-1-mediated diseases, including inflammatory disorders, cardiovascular diseases, ocular diseases, autoimmune diseases, neurol. disorders, and cancer. Compds. of the invention include I [Ra-Rd = H, (un)substituted alkyl, (un)substituted aryl, etc.; Z = (un)substituted carbohydrate, (un)substituted alditol, (un)substituted C1-10 alkyl terminated by sulfonic acid, etc.]. The compds. also can be used to treat hyperlipidemia and/or hypercholesterolemia. Compd. prepn. is described.

L4 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2003 ACS

RN 362598-44-5 REGISTRY
ITERATION INCOMPLETE

CN D-Ribose, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

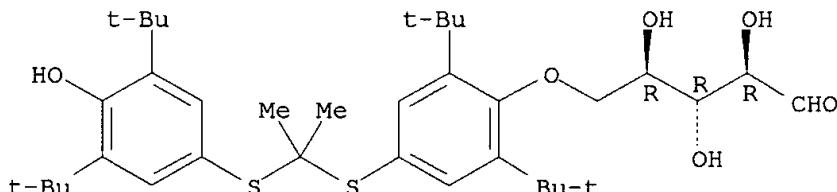
FS STEREOSEARCH

MF C36 H56 O6 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:267271 CA
TI Probucol-related thioketals and thioethers for inhibiting the expression of VCAM-1, preparation, and therapeutic use
IN Meng, Charles Q.; Hoong, Lee K.; Somers, Patricia K.
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2

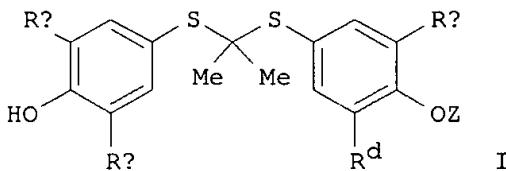
DT Patent

LA English

FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI WO 2001070757 A2 20010927 WO 2001-US9049 20010321
 WO 2001070757 A3 20020314
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
 HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
 LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 EP 1289944 A2 20030312 EP 2001-920617 20010321
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRAI US 2000-191046P 20000321
 WO 2001-US9049 20010321
 GI



AB Probucol-related thioketals and thioethers are provided that inhibit the expression of VCAM-1, and which can be used in the treatment of VCAM-1-mediated diseases, including inflammatory disorders, cardiovascular diseases, ocular diseases, autoimmune diseases, neurol. disorders, and cancer. Compds. of the invention include I [Ra-Rd = H, (un)substituted alkyl, (un)substituted aryl, etc.; Z = (un)substituted carbohydrate, (un)substituted alditol, (un)substituted C1-10 alkyl terminated by sulfonic acid, etc.]. The compds. also can be used to treat hyperlipidemia and/or hypercholesterolemia. Compd. prepn. is described.

L4 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2003 ACS

RN 362598-43-4 REGISTRY

ITERATION INCOMPLETE

CN Arabinitol, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

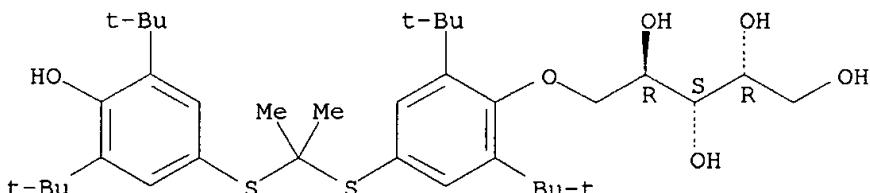
FS STEREOSEARCH

MF C36 H58 O6 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:267271 CA
TI Probucol-related thioketals and thioethers for inhibiting the expression
of VCAM-1, preparation, and therapeutic use
IN Meng, Charles Q.; Hoong, Lee K.; Somers, Patricia K.
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2

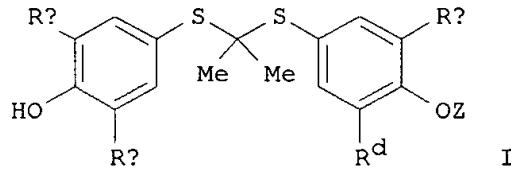
DT Patent
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070757	A2	20010927	WO 2001-US9049	20010321
	WO 2001070757	A3	20020314		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1289944	A2	20030312	EP 2001-920617	20010321
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			

PRAI US 2000-191046P 20000321
WO 2001-US9049 20010321

GI



AB Probucol-related thioketals and thioethers are provided that inhibit the expression of VCAM-1, and which can be used in the treatment of VCAM-1-mediated diseases, including inflammatory disorders, cardiovascular diseases, ocular diseases, autoimmune diseases, neurol. disorders, and cancer. Compds. of the invention include I [Ra-Rd = H, (un)substituted alkyl, (un)substituted aryl, etc.; Z = (un)substituted carbohydrate, (un)substituted alditol, (un)substituted C1-10 alkyl terminated by sulfonic acid, etc.]. The compds. also can be used to treat hyperlipidemia and/or hypercholesterolemia. Compd. prepn. is described.

L4 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2003 ACS
RN 268738-49-4 REGISTRY

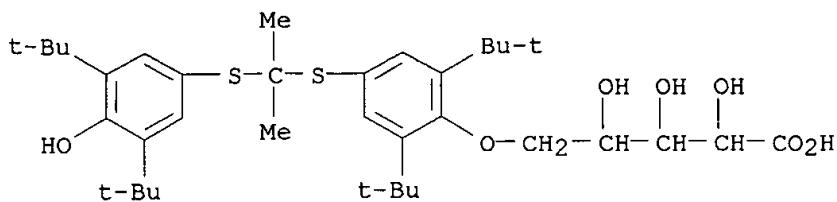
CN Pentonic acid, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]-(9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C36 H56 O7 S2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:303678 CA
 TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.
 IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday
 PA Atherogenics, Inc., USA
 SO PCT Int. Appl., 105 pp.
 CODEN: PIXXD2

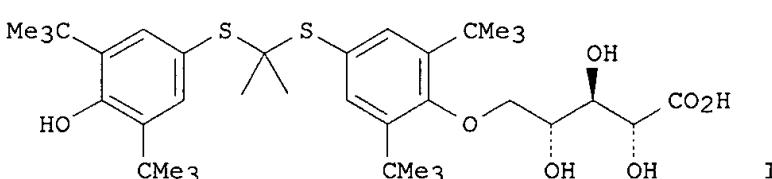
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077072	A2	20011018	WO 2001-US11899	20010411
	WO 2001077072	A3	20020718		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 2002016364	A1	20020207	US 2001-833407	20010411
	EP 1272465	A2	20030108	EP 2001-926894	20010411
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	US 2000-196201P		20000411		
	WO 2001-US11899		20010411		

GI



AB Title compds., e.g. (I), were prep'd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H2O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b) increasing HDL-particle affinity for hepatic cell surface receptors or (c)

increasing the half life of apoAI-HDL.

REFERENCE 2

AN 132:343330 CA
TI Methods and compositions to lower plasma cholesterol levels
IN Medford, Russell M.; Saxena, Uday
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028332	A1	20000518	WO 1999-US26519	19991109
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1137948	A1	20011004	EP 1999-962732	19991109
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002529740	T2	20020910	JP 2000-581459	19991109

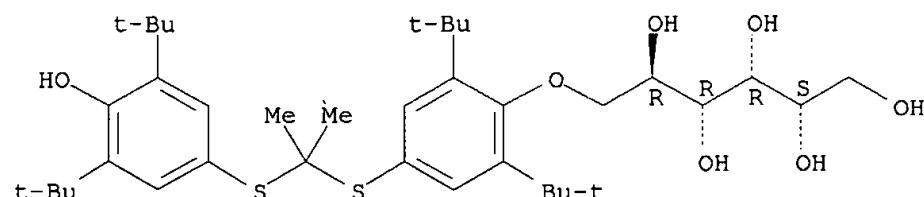
PRAI US 1998-107644P 19981109
WO 1999-US26519 19991109

AB A method for detg. whether a compd. binds to a lipoprotein, e.g. LDL or VLDL, in a manner which will lower plasma cholesterol is provided that includes assessing the ability of the compd. to form a complex with the lipoprotein, e.g., LDL or VLDL, and then detg. whether the newly formed complex causes a change in the structure of apoB-100 that results in increased binding affinity to the LDL receptor. Also disclosed is a method for lowering cholesterol in a host in need thereof, including a human, that includes the administration of an effective amt. of a compd. which binds to cholesterol-carrying lipoprotein (e.g. LDL or VLDL) in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor, including those on the surface of a hepatic cell.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2003 ACS
RN 216168-36-4 REGISTRY
ITERATION INCOMPLETE
CN D-Glucitol, 6-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C37 H60 O7 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

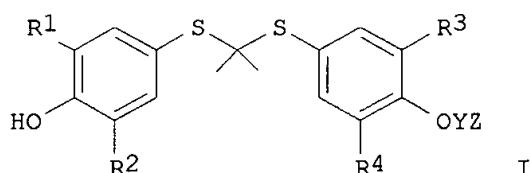
AN 137:320305 CA
TI Probucol derivatives and methods for treating transplant rejection
IN Edwards, David B.; Somers, Patricia K.; Glass, Mitchell
PA USA
SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No. 815,262.
CODEN: USXXCO

DT Patent
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002156022	A1	20021024	US 2001-36307	20011025
	US 6147250	A	20001114	US 1998-79213	19980514
	US 2002016300	A1	20020207	US 2001-815262	20010321
	US 2002177717	A1	20021128	US 2002-60734	20020130
	US 2002169215	A1	20021114	US 2002-114346	20020402
	US 2002188118	A1	20021212	US 2002-115206	20020402
	US 2002193446	A1	20021219	US 2002-114351	20020402
PRAI	US 1997-47020P		19970514		
	US 1998-79213		19980514		
	US 1999-370046		19990806		
	US 2000-191046P		20000321		
	US 2001-815262		20010321		

GI



AB The invention discloses the use of I [R¹-R⁴ = H, OH, C₁-10 alkyl, aryl, heteroaryl, etc.; Y = bond, C(O); Z = C₁-10 alkyl, C₂-10 alkenyl, C₂-10 alkynyl, etc.], and pharmaceutically acceptable salts thereof, alone or in combination, for the treatment of transplant rejection. Prepn. of I [R¹-R⁴ = tert-butyl; YZ = (CH₂)₃COOH] from probucol which was evaluated in a graft arteriopathy model and Me 4-chlorobutyrate is described.

REFERENCE 2

AN 132:343330 CA
TI Methods and compositions to lower plasma cholesterol levels
IN Medford, Russell M.; Saxena, Uday
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028332	A1	20000518	WO 1999-US26519	19991109
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,				

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1137948 A1 20011004 EP 1999-962732 19991109
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

JP 2002529740 T2 20020910 JP 2000-581459 19991109

PRAI US 1998-107644P 19981109
WO 1999-US26519 19991109

AB A method for detg. whether a compd. binds to a lipoprotein, e.g. LDL or VLDL, in a manner which will lower plasma cholesterol is provided that includes assessing the ability of the compd. to form a complex with the lipoprotein, e.g., LDL or VLDL, and then detg. whether the newly formed complex causes a change in the structure of apoB-100 that results in increased binding affinity to the LDL receptor. Also disclosed is a method for lowering cholesterol in a host in need thereof, including a human, that includes the administration of an effective amt. of a compd. which binds to cholesterol-carrying lipoprotein (e.g. LDL or VLDL) in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor, including those on the surface of a hepatic cell.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

AN 130:13646 CA
 TI Preparation of phenolic compounds for the inhibition of the expression of VCAM-1
 IN Medford, Russell M.; Somers, Patricia K.; Hoong, Lee K.; Meng, Charles Q.
 PA Atherogenics, Inc., USA
 SO PCT Int. Appl., 109 pp.
 CODEN: PIXXD2

DT Patent

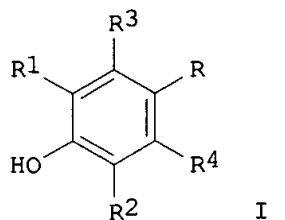
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851662	A2	19981119	WO 1998-US9781	19980514
	WO 9851662	A3	20000302		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9874851	A1	19981208	AU 1998-74851	19980514
	AU 750041	B2	20020711		
	EP 994853	A2	20000426	EP 1998-922264	19980514
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6121319	A	20000919	US 1998-78935	19980514
	BR 9809819	A	20010918	BR 1998-9819	19980514
	JP 2002503227	T2	20020129	JP 1998-549502	19980514
	NO 9905544	A	20000110	NO 1999-5544	19991112
	MX 9910402	A	20000630	MX 1999-10402	19991112

PRAI US 1997-47020P 19970514
WO 1998-US9781 19980514

GI



AB Title compds. [e.g., I; R = Z1Z2R5; R1,R2 = (un)substituted (cyclo)alkyl, -(hetero)aryl, etc.; R3,R4 = any group that does not otherwise adversely affect (sic) the desired properties of the mol. including H, halogen, or R1 (sic); R5 = (di)(alkyl)amino, alkyl, alkoxy(carbonyl), (hetero)aryl, etc.; Z1 = O SOO-2, NH, CH2; Z2 = bond, alkylene(oxy) aryleneoxy, etc.] were prep'd. Thus, 4-(BrCH₂)C₆H₄CH₂CO₂H was thioetherified by 4-mercaptop-2,6-di-tert-butylphenol to give I [R = SCH₂C₆H₄(CH₂CO₂H)-4, R₁ = R₂ = CMe₃, R₃ = R₄ = H]. Data for biol. activity of I were given.

L4 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2003 ACS

RN 216168-35-3 REGISTRY

CN ITERATION INCOMPLETE

CN D-Glucose, 6-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

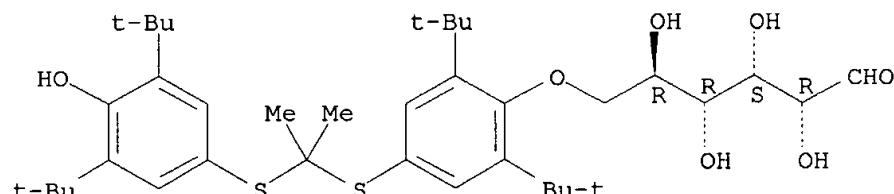
FS STEREOSEARCH

MF C37 H58 O7 S2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:303678 CA

TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.

IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday

PA Atherogenics, Inc., USA

SO PCT Int. Appl., 105 pp.

CODEN: PIXXD2

DT Patent

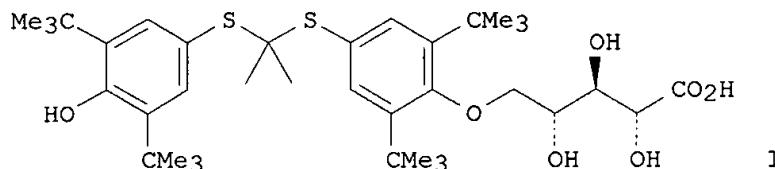
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077072	A2	20011018	WO 2001-US11899	20010411
	WO 2001077072	A3	20020718		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,			

LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 US 2002016364 A1 20020207 US 2001-833407 20010411
 EP 1272465 A2 20030108 EP 2001-926894 20010411
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRAI US 2000-196201P 20000411
 WO 2001-US11899 20010411

GI



AB Title compds., e.g. (I), were prep'd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H2O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b) increasing HDL-particle affinity for hepatic cell surface receptors or (c) increasing the half life of apoAI-HDL.

REFERENCE 2

AN 132:343330 CA
 TI Methods and compositions to lower plasma cholesterol levels
 IN Medford, Russell M.; Saxena, Uday
 PA Atherogenics, Inc., USA
 SO PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028332	A1	20000518	WO 1999-US26519	19991109
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1137948	A1	20011004	EP 1999-962732	19991109
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002529740	T2	20020910	JP 2000-581459	19991109

PRAI US 1998-107644P 19981109
 WO 1999-US26519 19991109

AB A method for detg. whether a compd. binds to a lipoprotein, e.g. LDL or VLDL, in a manner which will lower plasma cholesterol is provided that includes assessing the ability of the compd. to form a complex with the

lipoprotein, e.g., LDL or VLDL, and then detg. whether the newly formed complex causes a change in the structure of apoB-100 that results in increased binding affinity to the LDL receptor. Also disclosed is a method for lowering cholesterol in a host in need thereof, including a human, that includes the administration of an effective amt. of a compd. which binds to cholesterol-carrying lipoprotein (e.g. LDL or VLDL) in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor, including those on the surface of a hepatic cell.

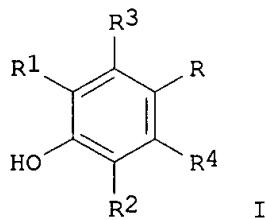
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

AN 130:13646 CA
 TI Preparation of phenolic compounds for the inhibition of the expression of VCAM-1
 IN Medford, Russell M.; Somers, Patricia K.; Hoong, Lee K.; Meng, Charles Q.
 PA Atherogenics, Inc., USA
 SO PCT Int. Appl., 109 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851662	A2	19981119	WO 1998-US9781	19980514
WO	WO 9851662	A3	20000302		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9874851	A1	19981208	AU 1998-74851	19980514
	AU 750041	B2	20020711		
	EP 994853	A2	20000426	EP 1998-922264	19980514
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6121319	A	20000919	US 1998-78935	19980514
	BR 9809819	A	20010918	BR 1998-9819	19980514
	JP 2002503227	T2	20020129	JP 1998-549502	19980514
	NO 9905544	A	20000110	NO 1999-5544	19991112
	MX 9910402	A	20000630	MX 1999-10402	19991112
PRAI	US 1997-47020P		19970514		
	WO 1998-US9781		19980514		

GI



AB Title compds. [e.g., I; R = Z1Z2R5; R1,R2 = (un)substituted (cyclo)alkyl, -(hetero)aryl, etc.; R3,R4 = any group that does not otherwise adversely affect (sic) the desired properties of the mol. including H, halogen, or R1 (sic); R5 = (di)(alkyl)amino, alkyl, alkoxy(carbonyl), (hetero)aryl, etc.; Z1 = O SOO-2, NH, CH2; Z2 = bond, alkylene(oxy) aryleneoxy, etc.] were prep'd. Thus, 4-(BrCH₂)C₆H₄CH₂CO₂H was thioetherified by

4-mercaptop-2,6-di-tert-butylphenol to give I [R = SCH₂C₆H₄(CH₂CO₂H)-4, R₁ = R₂ = CMe₃, R₃ = R₄ = H]. Data for biol. activity of I were given.

=>